

# INTERNATIONAL SEARCH REPORT

International Application No  
**PCT/US2004/022347**

## A. CLASSIFICATION OF SUBJECT MATTER

**IPC 7 G01B15/04 H01J37/28 G01R31/305**

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

**IPC 7 G01B H01J G01R H01L**

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**EPO-Internal, PAJ**

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/179812 A1 (KOCHI NOBUO ET AL) 5 December 2002 (2002-12-05)	1,2,4,5, 8,15,17, 42-44
Y	paragraphs '0007!', '0023!', '0124!; claims 5,11,20,18; figure 15	3,6,7, 20-24
X	WO 01/45136 A (APPLIED MATERIALS, INC; GOLDENSHEIN, ALEX; BEN-AV, RADEL; PEARL, ASHE) 21 June 2001 (2001-06-21)	1,15, 37-39, 41,42
Y	page 6, line 23 - line 25; page 8, line 12 - line 14; page 13, line 17 - line 20 page 8, line 9 - line 20; claims 1,7,13,14; figure 2 ----- -/--	3,6,7, 20-24

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

**24 August 2005**

Date of mailing of the international search report

**02/09/2005**

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 010, no. 322 (P-511), 31 October 1986 (1986-10-31) & JP 61 128114 A (TOSHIBA CORP), 16 June 1986 (1986-06-16) abstract -----	1-45
E	WO 2004/072631 A (APPLIED MATERIALS ISRAEL, LTD; APPLIED MATERIALS, INC; INTERNATIONAL B) 26 August 2004 (2004-08-26) abstract; claims 1,48 -----	1,9,15, 25,37
P,A	WO 2004/008255 A (APPLIED MATERIALS, INC; APPLIED MATERIALS ISRAEL, LTD; SENDER, BENZION) 22 January 2004 (2004-01-22) abstract; claims -----	1-45
A	EP 0 441 373 A (KABUSHIKI KAISHA TOSHIBA) 14 August 1991 (1991-08-14) abstract -----	1-45

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/022347

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002179812 A1	05-12-2002	JP 2002270126 A	20-09-2002
		JP 2002270127 A	20-09-2002
		JP 2002270124 A	20-09-2002
		US 2005040332 A1	24-02-2005
WO 0145136 A	21-06-2001	WO 0145136 A1	21-06-2001
		EP 1238405 A1	11-09-2002
		JP 2003517199 T	20-05-2003
JP 61128114 A	16-06-1986	NONE	
WO 2004072631 A	26-08-2004	AU 2003298774 A1	06-09-2004
		WO 2004072631 A2	26-08-2004
WO 2004008255 A	22-01-2004	AU 2003263776 A1	02-02-2004
		EP 1523671 A2	20-04-2005
		WO 2004008255 A2	22-01-2004
EP 0441373 A	14-08-1991	JP 2079008 C	09-08-1996
		JP 3233310 A	17-10-1991
		JP 7111336 B	29-11-1995
		DE 69112090 D1	21-09-1995
		DE 69112090 T2	09-05-1996
		EP 0441373 A2	14-08-1991
		KR 9407113 B1	05-08-1994
		US 5159643 A	27-10-1992